

1. Adjustment apparatus for adjusting the clearance between the interior surface of a rotatable drum having spaced end plates connected to a cylindrical shell and a magnet array having an outer surface supported by a fixed shaft having an outer surface in a relatively fixed position and disposed inside such drum, said apparatus comprising a hollow cylindrical sleeve having interior and exterior surfaces and opposite end portions and means for mounting said sleeve between such shaft and one such end plate, said means for mounting including adjustment means carried by said sleeve and located externally of the end plates for varying spatial distance between said interior surface of said sleeve and the outer surface of such shaft for moving the longitudinal axis of such drum relative to the longitudinal axis of such magnet array and to provide a generally uniform clearance space between the interior surface of such drum and an outer surface of such magnet array.
2. The apparatus as defined in Claim 1 wherein said sleeve includes a plurality of spaced threaded radially disposed holes extending between said interior and exterior surfaces, said adjustment means including a plurality of elongate screws threaded into said holes and contacting the outer surface of such shaft, each said screw operable inwardly and outwardly in respective said hole to move said sleeve with respect to such shaft for moving the longitudinal axis of such drum.
3. The apparatus as defined in Claim 2 wherein such shaft has a plurality of flat surface areas formed on the outer surface thereof for engagement with a respective said screw.
4. The apparatus as defined in Claim 1 wherein said means for mounting includes a bearing surface formed on one said end portion of said sleeve for engagement with an end plate for supporting a drum thereon.
5. The apparatus as defined in Claim 2 wherein said holes are spaced at approximately 60 degrees apart.
6. The apparatus as defined in Claim 1 wherein said sleeve includes a first and second set of spaced radially disposed holes extending between said interior and exterior surfaces,

said adjustment means including a plurality of elongate posts located in said first set of holes and contacting the outer surface of such shaft, each installed said posts operable inwardly and outwardly in respective said hole to move said sleeve with respect to such shaft for vertically moving the longitudinal axis of such drum.

7. The apparatus as defined in Claim 6 wherein said posts are located in both of said sets of holes for enhanced stability.

8. The apparatus as defined in Claim 1 wherein said sleeve includes a first and second set of spaced radially disposed holes extending between said interior and exterior surfaces, said adjustment means including a plurality of elongate threaded screws located in said first set of holes and contacting the outer surface of such shaft, each said screw operable inwardly and outwardly in respective said hole to move said sleeve with respect to such shaft for vertically moving the longitudinal axis of such drum.

9. Adjustment apparatus for adjusting the clearance between the interior surface of a rotatable drum having spaced end plates connected to a cylindrical shell and a magnet array having an outer surface supported by a fixed shaft having an outer surface and opposite end portions in a relatively fixed position and disposed inside such drum, said apparatus comprising a pair of hollow cylindrical sleeves each having interior and exterior surfaces and opposite end portions and means for mounting each said sleeve between one end portion of such shaft and one such end plate, said means for mounting including adjustment means carried by said sleeve and located externally of the end plates for varying spatial distance between said interior surface of said sleeve and the outer surface of a respective end portion of such shaft and for moving the longitudinal axis of such drum relative to the longitudinal axis of such magnet array and to provide a generally uniform clearance space between the interior surface of such drum and an outer surface of such magnet array.

10. The apparatus as defined in Claim 9 wherein each said sleeve includes a plurality of spaced threaded radially disposed holes extending between said interior and exterior

surfaces, said adjustment means including a plurality of elongate screws threaded into said holes and contacting the outer surface of the end portion of such shaft, each said screw operable inwardly and outwardly in respective said hole to move respective said sleeve with respect to such shaft for moving the longitudinal axis of such drum.

11. The apparatus as defined in Claim 10 wherein such shaft has a plurality of flat surface areas formed on the outer surface thereof for engagement with a respective said screw.

12. The apparatus as defined in Claim 9 wherein said means for mounting includes a bearing surface formed on one said end portion of each said sleeve for engagement with an end plate for supporting a drum thereon.

13. The apparatus as defined in Claim 10 wherein said holes are spaced circumferentially at approximately 60 degrees apart.

14. Adjustment apparatus for adjusting the clearance between an interior surface of a hollow drum rotatably mounted on a shaft having an outer surface, said drum having spaced end plates connected to a cylindrical shell and a magnet array supported by said shaft in a relatively fixed position with respect to said drum and shaft and disposed inside said drum, said apparatus comprising a pair of hollow cylindrical sleeves each having interior and exterior surfaces and opposite end portions and means for mounting respective said sleeve between said shaft and respective said end plates, said means for mounting including adjustment means carried by said sleeve and located externally of said end plates for varying spatial distance between said interior surface of said sleeve and said outer surface of said shaft and for moving the longitudinal axis of said drum relative to the longitudinal axis of said magnet array and to provide a generally uniform clearance space between said interior surface of said drum during its rotation with respect to an outer surface of said magnet array.

15. The apparatus as defined in Claim 14 wherein each said sleeve includes a plurality of spaced threaded radially disposed holes extending between said interior and exterior surfaces, said adjustment means including a plurality of elongate screws threaded into said holes and contacting said outer surface of the end portion of said shaft, each said screw operable inwardly and outwardly in respective said hole to move respective said sleeve with respect to said shaft for moving the longitudinal axis of said drum.

16. The apparatus as defined in Claim 15 wherein said shaft has a plurality of flat surface areas formed on said outer surface for engagement with a respective said screw.

17. The apparatus as defined in Claim 14 wherein said means for mounting includes a bearing surface formed on one said end portion of each said sleeve for engagement with said end plate for supporting said drum thereon.

18. The apparatus as defined in Claim 15 wherein said screws are spaced circumferentially at approximately 120 degrees apart.

19. The apparatus as defined in Claim 14 wherein said sleeve includes a first and second set of spaced radially disposed holes extending between said interior and exterior surfaces, said adjustment means including a plurality of elongate threaded screws located in said first set of holes and contacting the outer surface of such shaft, each said screw operable inwardly and outwardly in respective said hole to move said sleeve with respect to such shaft for vertically moving the longitudinal axis of such drum.

20. The apparatus as defined in Claim 19 wherein said holes in said first and second sets of holes are spaced circumferentially at approximately 120 degrees apart.